

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. - 21. (Canceled)

22. (New) A method of differentially updating stored data in a mobile terminal from a first data version to an updated data version, the method comprising the steps of:

loading differential update instructions into the mobile terminal;

generating the updated data version by the mobile terminal from the stored data and the loaded differential update instructions; and

detecting whether the stored data in the mobile terminal includes one or more corrupted memory blocks having stored therein data that is inconsistent with the first data version; and

repairing, when generating the updated data version, any such detected corrupted memory block.

23. (New) The method according to claim 22, further comprising generating the differential update instructions based on information about detected corrupted memory blocks, if any.

24. (New) The method according to claim 23, wherein the differential update instructions include update data and the step of generating the updated data version further comprises the step of replacing data stored in predetermined one or more memory blocks by the update data.

25. (New) The method according to claim 24, wherein the update data includes one or more repaired memory blocks of data consistent with the updated data

version, the one or more repaired memory blocks of data corresponding to the detected one or more corrupted memory blocks of data, if any.

26. (New) The method according to claim 23, wherein the step of generating the differential update instructions further comprises the step of generating instructions to cause the mobile terminal to generate the updated data version from the stored data, excluding any detected one or more corrupted memory blocks from the differential update instructions.

27. (New) The method according to claim 23, wherein the step of generating the differential update instructions is performed by a remote data processing system.

28. (New) The method according to claim 27, further comprising the step of the mobile terminal and the remote data processing system communicating via a wireless communications link.

29. (New) The method according to claim 28, further comprising the step of the mobile terminal and the remote data processing system communicating via an Internet Protocol.

30. (New) The method according to claim 27, wherein the step of detecting is performed by the mobile terminal and the detecting further comprises the step of transmitting information about the detected one or more corrupted memory blocks from the mobile terminal to the remote data processing system.

31. (New) The method according to claim 27, wherein the method further comprises the step of transmitting information about the stored data from the mobile terminal to the remote data processing system and wherein the step of detecting is performed by the remote data processing system from the transmitted information.

32. (New) The method according to claim 22, wherein the step of detecting further comprises the steps of:

calculating a number of checksums by the mobile terminal, wherein each checksum corresponds to a corresponding memory block of data stored in the mobile terminal; and

comparing the calculated checksums with a number of reference checksums to identify any corrupted memory block of data.

33. (New) The method according to claim 32, wherein the reference checksums are stored in the mobile terminal and further comprising the step of performing the step of comparing by the mobile terminal.

34. (New) The method according to claim 33, further comprising the step of integrity protecting the reference checksums stored in the mobile terminal by a message authentication code.

35. (New) The method according to claim 32, further comprising the steps of: storing the reference checksums on a remote data processing system wherein the transmitted information comprises the calculated checksums; and

wherein the detecting step further comprises the step of comparing the transmitted calculated checksums by the remote data processing system with the number of reference checksums stored on the remote data processing system.

36. (New) The method according to claim 32, wherein the calculating step further comprises the step of calculating the checksums as a cryptographically strong one-way hash function of the corresponding memory block of the stored data.

37. (New) A mobile terminal comprising:
a data memory for storing data;

communications means adapted to receive from a data processing system differential update instructions for updating data stored in the data memory from a first data version to an updated data version;

processing means adapted to generate the updated data version from the stored data and from the received differential update instructions, wherein the processing means is further adapted to:

generate information from the stored data indicative of the presence or absence of one or more corrupted memory blocks having stored therein data that is inconsistent with the first data version; and

communicate the generated information via the communications means to the data processing system for generating the differential update instructions.

38. (New) A data processing system for facilitating differentially updating stored data in a mobile terminal from a first data version to an updated data version, the data processing system comprising:

means for loading differential update instructions into the mobile terminal, the differential update instructions causing the mobile terminal to generate the updated data version from the stored data and the loaded differential update instructions;

the data processing system further comprising:

means for receiving information from the mobile terminal indicative of the presence or absence of one or more corrupted memory blocks having stored therein data that is inconsistent with the first data version; and

processing means adapted to generate the differential update instructions from the first and updated data versions and from the received information; and

include repair instructions into the differential update instructions, wherein the repair instructions are adapted to cause the mobile terminal to repair any such detected corrupted memory block.

39. (New) A computer program comprising program code means adapted to cause a mobile terminal to differentially update stored data in the mobile terminal from a

first data version to an updated data version by performing the following steps, when the program is executed on the mobile terminal:

generating information from the stored data indicative of the presence or absence of one or more corrupted memory blocks having stored therein data that is inconsistent with a first data version;

loading differential update instructions into the mobile terminal; and

generating the updated data version by the mobile terminal from the stored data and the loaded differential update instructions, including repairing any such detected corrupted memory block.

40. (New) A computer program comprising program code means adapted to cause a data processing system to facilitate differentially updating stored data in a mobile terminal from a first data version to an updated data version by performing the following steps, when the program is executed on the data processing system:

generating differential update instructions from the first and updated data versions and from information received from the mobile terminal, wherein the received information is indicative of the presence or absence of one or more corrupted memory blocks having stored therein data that is inconsistent with the first data version, wherein generating differential update instructions comprises including repair instructions into the differential update instructions, wherein the repair instructions are adapted to cause the mobile terminal to repair any such detected corrupted memory block; and

loading the generated differential update instructions into the mobile terminal, the differential update instructions causing the mobile terminal to generate the updated data version from the stored data and the loaded differential update instructions.

41. (New) The mobile terminal according to claim 37, in combination with a mobile communications network.